

Green Manures No. TGM16

White tephrosia, *Tephrosia candida*

Green manures are plants which are grown mainly for the benefit of the soil. They can be grown as part of a rotation or in an intercropping system to build soil fertility, or as a cover crop to protect bare soil from erosion. Full details on the benefits and practice of using green manures can be found in HDRA's booklet 'Green manures/Cover crops'.



Growing conditions

- Annual rainfall: White tephrosia requires 700mm to 2500mm. It tolerates waterlogging.
- Altitude: It grows up to 1650m.
- Temperature: It does best in temperatures of 18° C to 28° C. It does not tolerate frost.
- Soil type: It tolerates a wide range of soils, pH 5.0 to 8.0. It thrives in poor soils.

Nitrogen fixation

White tephrosia is a legume. This means that it has nodules on its roots which contain bacteria. These bacteria take nitrogen from the air. This is known as nitrogen fixation. The plant uses this to grow and when the legume is dug into the soil, the extra nitrogen is made available to the next crop.

Cultivation

For green manure under tea shrubs, sow at a rate of 3 to 3.5kg/ha.

Germination increases if the seeds are pre-treated by soaking in sulphuric acid for 10 to 12 minutes.

Growth form

White tephrosia is a perennial shrub lasting for 3 to 4 years.

Recommended application

It can be treated as an annual green manure and dug in prior to flowering, although plants are slow to establish.

It is more suitable as a permanent as cover crop in coconut, rubber, coffee and tea plantations to suppress weeds, add fertility and control erosion.

Treated as a perennial, it is cut back before it flowers and the cutting used as a mulch or dug into the soil. It will withstand 3 to 4 years of cutting back.

It is also often grown as a contour hedging in citrus and cinnamon orchards and rubber plantings.

Human food

White tephrosia is not suitable for human consumption. It is poisonous. Cattle avoid the plant.

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